(54) Title: DETERMINING DISTANCES IN A WAREHOUSE

Step 1 — determining distance between A and the exit node within the source zone

Step 2 — determining distance between exit node of source zone and entry node of destination zone

Step 3 — determining distance between entry node and B within destination zone

Step 4 — summing up the distances determined in steps 1 to 3
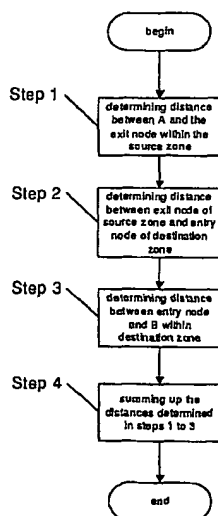
(57) Abstract: The invention provides methods and apparatus, including computer program products, for warehouse management. In warehouse management it is often necessary to determine the shortest distance a resource has to travel through a warehouse when moving from a location A to a location B. To determine distances the locations are grouped together in zones. For every zone at least one entry and one exit point or node is defined. The function of an entry node and an exit node may be provided by a single node. Every node is defined by its coordinates. The routing is performed in three steps. In the first step a route from a source storage bin to an exit node of the zone is determined. This step may be referred to as "intra zone routing". The intra zone routing can be done based on a metric. In the second step the distance from the source zone to the destination zone is determined. This step may be called "inter zone routing". The inter zone routing may be done using a "line-of-sight method". The third step consists of determining the distance from the entry node of the destination zone to a destination storage bin. This is again an "intra zone routing" as described in the first step.